



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(344091)
Machine Id
LIEBHERR LH40M 120553-1215
Component
Rear Right Wheel Hub
Fluid
PETRO CANADA TRAXON 75W90 SYNTHETIC (--- GAL)

RECOMMENDATION

Confirm the source of the lubricant being utilized for top-up/fill. Resample at the next service interval to monitor. The fluid was specified as PETRO CANADA TRAXON 75W90 SYNTHETIC, however, a fluid match indicates that this fluid is SAE 90 Gear Oil. Please confirm the oil type and grade on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0193882	LH0193868	LH0193854
Sample Date		Client Info		13 Feb 2024	21 Feb 2023	11 Oct 2021
Machine Age	hrs	Client Info		4086	2835	1021
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		None	None	None
Sample Status				NORMAL	ABNORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>650	72	38	13
Chromium	ppm	ASTM D5185(m)	>4	<1	0	0
Nickel	ppm	ASTM D5185(m)	>4	<1	0	<1
Titanium	ppm	ASTM D5185(m)	>4	0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	<1	<1	<1
Lead	ppm	ASTM D5185(m)	>4	<1	3	1
Copper	ppm	ASTM D5185(m)	>60	24	▲ 84	32
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	VLITE	▲ LTMOD
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

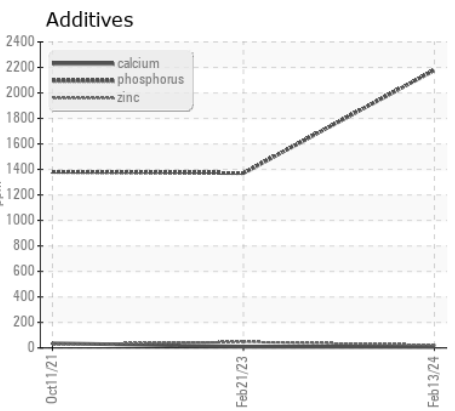
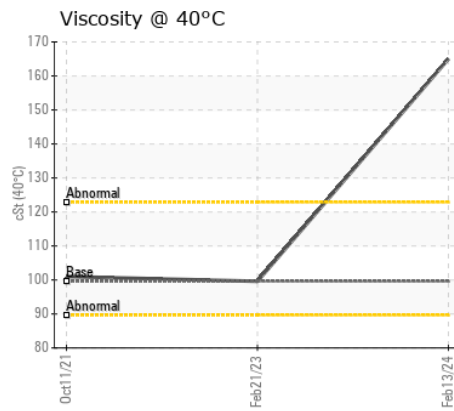
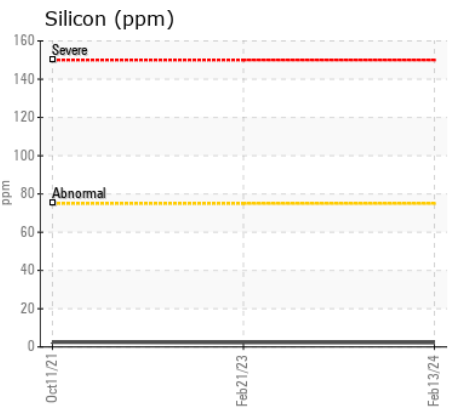
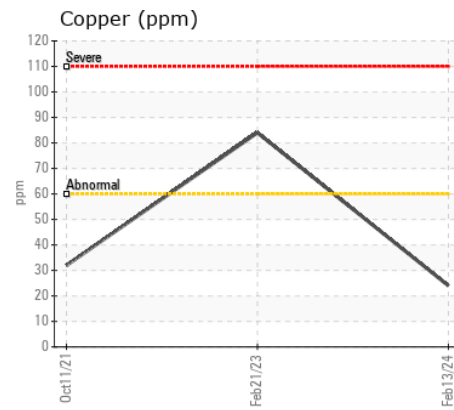
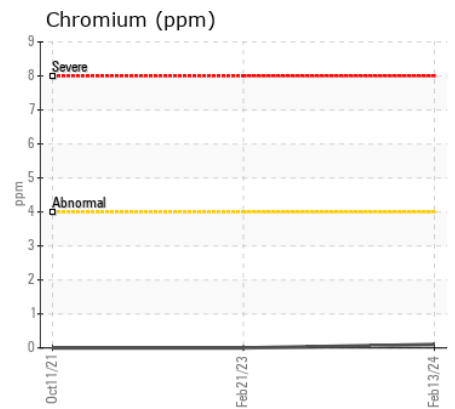
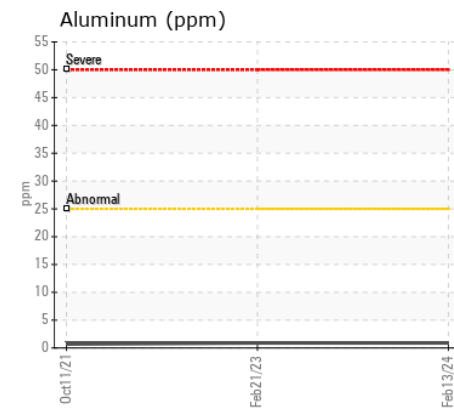
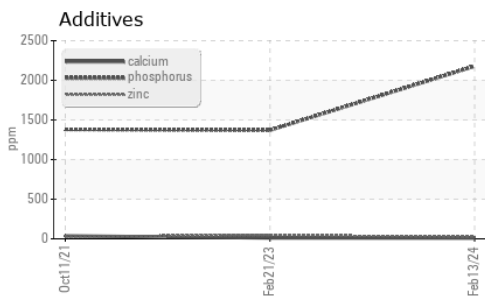
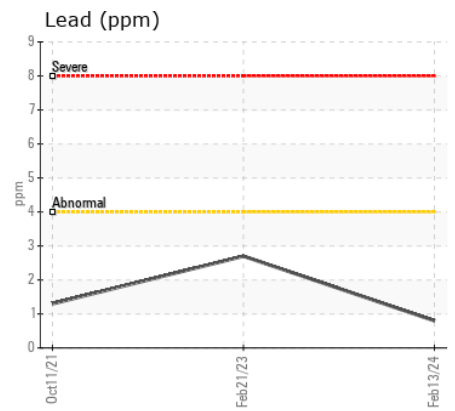
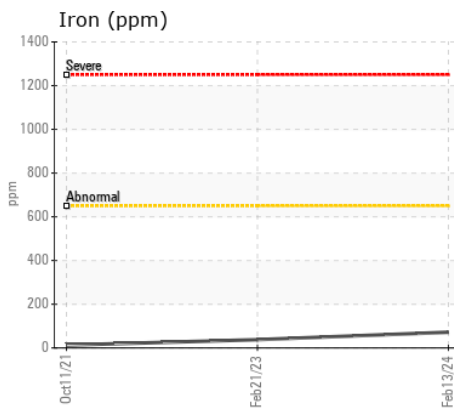
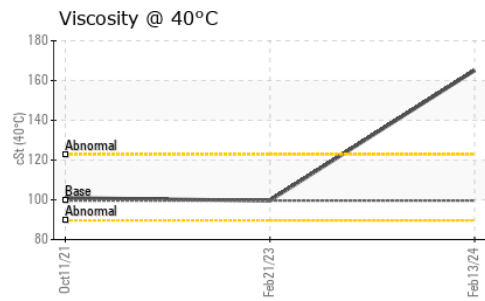
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>75	2	2	2
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	1
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

Viscosity of sample indicates oil is within SAE 90 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		3	2	3
Boron	ppm	ASTM D5185(m)	328	36	316	249
Barium	ppm	ASTM D5185(m)	1	0	0	<1
Molybdenum	ppm	ASTM D5185(m)		0	0	<1
Manganese	ppm	ASTM D5185(m)		1	2	<1
Magnesium	ppm	ASTM D5185(m)	1	<1	1	1
Calcium	ppm	ASTM D5185(m)	7	9	11	37
Phosphorus	ppm	ASTM D5185(m)	1145	2179	1371	1381
Zinc	ppm	ASTM D5185(m)	3	22	47	28
Sulfur	ppm	ASTM D5185(m)	17909	24620	22321	20934
Visc @ 40°C	cSt	ASTM D7279(m)	99.6	165	99.6	101



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0193882 **Received** : 16 Feb 2024
Lab Number : 02616386 **Tested** : 20 Feb 2024
Unique Number : 5733496 **Diagnosed** : 20 Feb 2024 - Kevin Marson
Test Package : MOBCE (Additional Tests: Visual)

Goodies Trading Ltd.
 8150 Aitken Road
 Chilliwack, BC
 CA V2R 4H5
 Contact: Service Manager

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.

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F: